-ABSTRACT OF THE DISCLOSURE

A method of producing a radial tire for a construction vehicle, the method enabling a vast reduction in facility costs. A first green tire is formed in a first step molding machine and then removed from it. After that, a vulcanizer bladder unit is installed on the tire. The tire is inflated by the vulcanizer bladder unit and then again placed in the first step molding machine with the vulcanizer bladder unit installed. After that, on the first step molding machine, belts and tread rubber are adhered to the outer periphery of the tire to form a completed green tire. Then the completed green tire, with the vulcanizer bladder unit, is assembled in a vulcanizing mold for vulcanization.